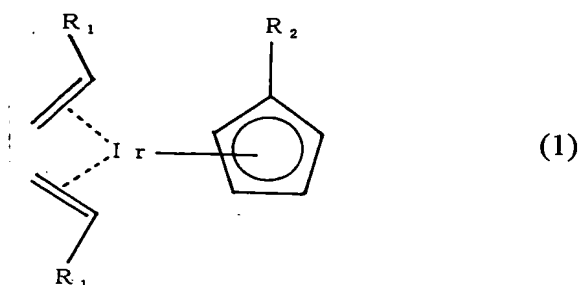


ABSTRACT

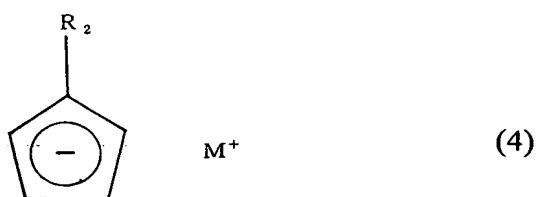
An organometallic iridium compound having low melting point, excellent vaporization characteristic and low film formation temperature on a substrate, a process for producing the compound, and a process for preparing iridium-containing films using the organometallic compound are provided.

The organometallic iridium compound represented by the formula (1)

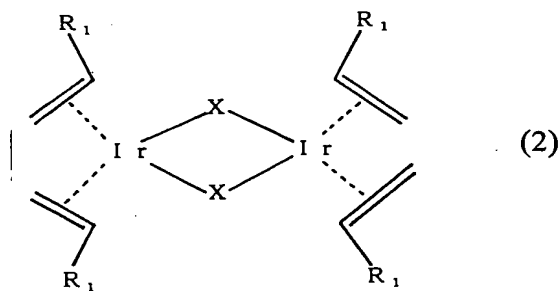


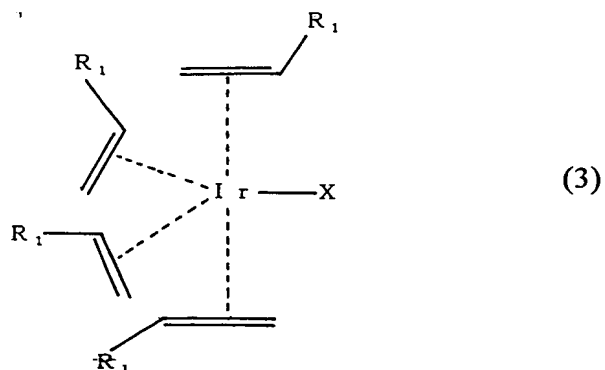
(example of specific compound: (ethylcyclopentadienyl)bis(ethylene)iridium)

is obtained by reacting a compound represented by the formula (4)



with a compound represented by the formula (2) or (3)





An iridium-containing film is prepared using the compound as a precursor.

In the formulae, R_1 represents hydrogen atom or a lower alkyl group; R_2 represents a lower alkyl group; X represents a halogen atom; and M represents an alkali metal.